CLAIMS

1.   A system of high-speed and bulk backup comprising:

a backup object disk whereon a backup object data to be stored;

5   a backup disk whereon the backup object data to be compressed and stored;

an input/output unit, wherein the command including backup operating commands is input and the results from the predetermined command is output;

a backup means, wherein a volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running several

10   flows within a process are generated and thereby said divided unit data is sequentially compressed and stored onto said backup disk; and

a central processing unit, wherein the backup operating command supplied through said input/output unit is processed for implementing a backup using said backup means.

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2.   The system of high-speed and bulk backup of claim 1 comprising:

a backup master module, wherein the backup operating command supplied through said input/output unit and central processing unit is received and transmitted to a backup manager module;

20   a backup manager module, wherein a backup operating command required for implementing a backup is received from said backup master module and thereby the backup reservation information for each volume is managed, a backup status and backup history information for each volume is collected and managed, and the backup command for a disk volume according to a backup schedule is generated;

25   and

a backup agent module, wherein a backup command is supplied from said backup manager module and thereby the volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running

several flows within a process are generated and thereby said divided unit data is sequentially compressed and stored onto said backup disk.

3.   The system of high-speed and bulk backup of claim 1,
        wherein said unit data is divided with 20~25 Mbytes when the block size for division is multiplied by the number of blocks.

4.   The system of high-speed and bulk backup of claim 1,
        wherein said backup means implements a volume backup by dividing the whole volume of said backup object data through accessing to a raw device regardless of the type of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has more than one hundred thousand files.

5.   The system of high-speed and bulk backup of claim 1,
        wherein said backup means implements a file backup by dividing said backup object data into the unit of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has less than one hundred thousand files.

6.   A system of high-speed and bulk backup comprising:
        a backup master server including a backup master module receiving a backup operating command; and
        a backup manager server including a backup object disk whereon the backup object data is stored, a backup disk whereon the backup object data is compressed and stored, a backup manager module wherein the backup operating command required for backup operation is received from said backup master server and thereby the backup command for a volume of disk is generated according to a backup schedule, and a backup agent module wherein according to the backup

commands supplied from said backup manager module, the volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running several flows within a process are generated, and thereby said divided unit data is sequentially compressed and stored onto said backup disk.

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7. The system of high-speed and bulk backup of claim 6, wherein said predetermined size of unit data is divided with 20~25 Mbytes when the block size is multiplied by the number of blocks.

10 8. The system of high-speed and bulk backup of claim 6,
wherein said backup manager server implements a volume backup by dividing the whole volume of said backup object data through accessing to a raw device regardless of the type of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has more than

15 one hundred thousand files.

9. The system of high-speed and bulk backup of claim 6,
wherein said backup manager server implements a file backup by dividing said backup object data into the unit of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has less

20 than one hundred thousand files.

10. A system of high-speed and bulk backup comprising:
a backup master server including a backup master module receiving a

25 backup operating command;
a plurality of backup manager servers including a backup object disk whereon the backup object data is stored, and a backup manager module wherein the backup operating command required for backup operation is received from said

backup master server and thereby the backup command for a volume of disk is
generated according to a backup schedule, and

   a plurality of backup agent servers including a backup disk whereon the
backup object data is compressed and stored, and a backup agent module wherein

5 according to the backup command supplied from said backup manager module, the
volume of data on said backup object disk is divided into a predetermined size of
unit data, a plurality of threads running several flows within a process are generated,
and thereby said divided unit data is sequentially compressed and stored onto said
backup disk.

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11. The system of high-speed and bulk backup of claim 10, wherein said
predetermined size of unit data is divided with 20~25 Mbytes when the block size is
multiplied by the number of blocks.

15 12. The system of high-speed and bulk backup of claim 10,
   wherein said backup agent server implements a volume backup by dividing
the whole volume of said backup object data through accessing to a raw device
regardless of the type of file, and then by compressing into a plurality of threads, in
case a backup object data stored in said backup object disk has more than one
20 hundred thousand files.

13. The system of high-speed and bulk backup of claim 10,
   wherein said backup agent server implements a file backup by dividing said
backup object data into the unit of file, and then by compressing into a plurality of
25 threads, in case a backup object data stored in said backup object disk has less than
one hundred thousand files.

14. A method of high-speed and bulk backup comprising the steps of:

receiving the compression object disk information and the directory information to be stored;

driving a plurality of compression threads;

dividing and reading block index values supplied from said compression

5   object disk on a plurality of driven compression threads;

reading each data block belong to the block index read for each compression thread;

compressing simultaneously for said each data block read on a plurality of said compression threads;

10   storing the data blocks compressed to a storage directory for a plurality of compression threads;

judging whether there exist more data blocks to be compressed, increasing the block index if there exist more data blocks to be compressed, then interrupting to read said data block;

15   finishing a plurality of threads if there exist no data blocks to be compressed; and

completing a backup by ensuring that compression of all data blocks is completed.

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